

1. Record Nr.	UNINA9910454681703321
Autore	Pecseli Hans L. <1947->
Titolo	Fluctuations in physical systems [[electronic resource] /] / Hans L. Pecseli
Pubbl/distr/stampa	Cambridge ; ; New York, : Cambridge University Press, 2000
ISBN	0-511-04816-5 0-511-15121-7 0-511-01061-3
Descrizione fisica	1 online resource (202 p.)
Disciplina	530
Soggetti	Fluctuations (Physics) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 182-185) and index.
Nota di contenuto	""Contents""; ""Preface""; ""1 Introduction""; ""2 Elements of statistical analysis""; ""3 Fluctuations in electric circuits""; ""4 The fluctuation-dissipation theorem""; ""5 The Kramers-Kronig relations""; ""6 Brownian motion""; ""7 Random walks""; ""8 Density fluctuations in gases""; ""9 A reference model""; ""10 Markov processes""; ""11 Diffusion of particles""; ""12 Thermal fluctuations in a diode""; ""13 Fermi acceleration""; ""Appendix A: The binomial distribution""; ""Appendix B: The Poisson distribution""; ""Appendix C: The Gaussian or normal distribution"" ""Appendix D: Dirac's I?-function""""Appendix E: Physical constants""; ""Appendix F: The MKSA units""; ""References""; ""Index""
Sommario/riassunto	This book provides an introduction to applied statistical mechanics by considering physically realistic models. It provides a simple and accessible introduction to theories of thermal fluctuations and diffusion, and goes on to apply them in a variety of physical contexts. The first part of the book is devoted to processes in thermal equilibrium, and considers linear systems. Ideas central to the subject, such as the fluctuation dissipation theorem, Fokker-Planck equations and the Kramers-Kroenig relations are introduced during the course of the exposition. The scope is then expanded to includ

